

REMARKS

Claims 1-3, 6, 7, 16, 17 and 19-22 are pending in the application; each of the claims has been rejected.

The specification has been amended to insert sequence identifiers.

Claims 2, 6 and 7 have been amended to recite stringent hybridization conditions. Support for this amendment can be found at page 32, lines 1-2, and page 36, lines 16-22, of the specification.

Claims 1, 20 and 21 have been amended to recite degrees of homology with specific domains of SEQ ID NO:1, or over the entire protein. Support for the amendment may be found in the specification as follows:

at least 50% for the entire protein – see page 27, lines 8-12

at least 45% for the transcriptional activation domain - see page 27, lines 15-17

at least 90% for the DNA binding domain - see page 27, lines 17-19

at least 80% for the oligomerization domain - see page 27, lines 19-21

Support for new claims 23-29 can be found in the claims as filed, and at page 27, line 22 through page 28, line 3, where use of “a few” amino acid deletions, substitutions or additions is discussed.

No new matter has been added. Entry of this amendment is respectfully requested.

I. Formal Matters

A. Applicants note that the Examiner has not returned an acknowledged copy of the reference list submitted with the IDS filed January 18, 2001. Therefore, Applicants respectfully request the Examiner to return an appropriately acknowledged copy of said reference list with the next mailing from the Patent Office. For the Examiner's convenience, a copy of the reference list is submitted herewith.

B. At page 2 of the Office Action, the Examiner states that the substitute Declaration filed June 12, 2002 is unacceptable because it lists the serial number of the PCT application, of which the instant application is a national stage application, under the foreign priority information.

In response, Applicants submit herewith a Substitute Declaration and Power of Attorney in which the error noted by the Examiner has been corrected. Applicants respectfully request acceptance and entry of the same.

II. Sequence Rules

At the bottom of page 3 of the Office Action, the Examiner states that the specification does not comply with the rules regarding nucleic acid and amino acid sequences because the sequences in the specification and figures are not identified by sequence identifiers.

In response, Applicants include herewith amendments to the specification, inserting sequence identifiers into the text of the specification where appropriate.

Applicants also include herewith a substitute Sequence Listing that includes all of the polynucleotide and polypeptide sequences in the application that fall within the rules governing sequences (37 C.F.R. §1.821(a)). Applicants request entry of the same.

In view of the amendments to the specification and the substitute Sequence Listing, Applicants respectfully request reconsideration and withdrawal of this objection.

III. Rejection of Claims Under 35 U.S.C. §112

At the bottom of page 4 of the Office Action, claims 2, 3, 6, 7 and 19 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The Examiner states that the metes and bounds of the term “under stringent conditions” is not clear.

In response, Applicants include herewith amendments to the claims to define the hybridization conditions recited in the claims. Support for the amendment is as indicated above. In view of these amendments, Applicants assert that the claims, as amended, as definite and respectfully request reconsideration and withdrawal of this rejection.

IV. Rejection of Claims Under 35 U.S.C. §102

A. At page 5 of the Office Action, claims 1, 2, 6, 7, 16, 17 and 19-22 are rejected under 35 U.S.C. §102(b) as being anticipated by GenEmbl accession number Y11416¹ (September 2, 1997) as evidence by Kaghad et al. (1997).

Briefly, the Examiner explains that because the claims are open-ended with regard to the number of deletions, additions or substitutions that may be made, any protein having transcriptional control activity, growth inhibition activity or apoptosis induction activity anticipates the polypeptides recited in the claims. Specifically, the Examiner states that the p73 beta protein of Kaghad has transcriptional activity and growth suppression activity, and thereby anticipates claims 1, 20 and 21.

The Examiner also states that any polynucleotide with about a 15 nucleotide match to SEQ ID NO:2 would be expected to hybridize to SEQ ID NO:2, and as the sequence of Y11416 has stretches of 100% match with SEQ ID NO:1, the nucleotide sequence encoding Y11416 would be expected to hybridize with SEQ ID NO:2.

In response, Applicants include herewith amendments to the claims such that claims 1, 20 and 21 recite specific structural limitations, and claims 2, 6 and 7 recite specific stringent hybridization conditions.

¹ Applicants believe that the Examiner mistakenly refers to the protein as "Y11414."

As to the specific structural limitations (support for which may be found in the specification as discussed above), the value of overall homology is recited as 50%. While the overall homology of the Y11416 protein of Kaghad et al. with SEQ ID NO:1 is listed as 72.6% (second page, left column, under "Alignment Scores") on the alignment provided by the Examiner, Applicants note that claims 1, 20 and 21 recite additional structural features not taught or suggested by Kaghad et al. A comparison of the homology between these additional structural features and the domains of the Y11416 protein of Kaghad et al. reveal that the degree of homology between Y11416 and SEQ ID NO:1 is less than that required in the amended claims. Namely,

the Y11416 protein has 32% homology with amino acids 1-59 of SEQ ID NO:1, while Applicants claim a homology of at least 45%,

the Y11416 protein has 87% homology with amino acids 142-321 of SEQ ID NO:1, while Applicants claim a homology of at least 90%,

the Y11416 protein has 54% homology with amino acids 359-397 of SEQ ID NO:1, while Applicants claim a homology of at least 80%, and thus the Y11416 protein of Kaghad et al. does not anticipate the pending claims.

In view of the points discussed above, and the amendments to the claims, Applicants assert that the Y11416 protein of Kaghad et al. does not anticipate each element of the amended claims. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

B. At page 6 of the Office Action, claims 1, 16, 17, 20 and 21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Chan et al. (1993).

The Examiner states that because the claims are open-ended with regard to the number of deletions, additions or substitutions (as explained above), the claims read on any DNA encoding a transcription factor.

In response, Applicants again note that the claims have been amended to recite a specific degree of homology for the polypeptides encoded by the polynucleotides encompassed within the scope of the rejected claims.

Applicants further assert that there is no significant degree of homology between the transcriptional factor of Chan et al. and the polypeptide of SEQ ID NO:1. Applicants enclose herewith the results of a BLAST search where no homologous sequences were identified (see the empty box at page 4).

Therefore, the amount of homology between the specific domains of the polypeptides recited in the rejected claims and that of Chan et al. is less than that required for inclusion of a polypeptide in the claims.

Accordingly, the transcription factor of Chan et al. does not anticipate each element of the claims, as amended, and Applicants respectfully request reconsideration and withdrawal of this rejection.

V. Conclusion

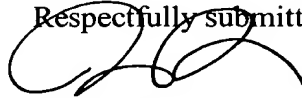
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. §1.111
U.S. Appln. No. 09/670,568

Q61014

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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